

PCDH7 (2D7): sc-517042

BACKGROUND

As a subfamily of the cadherin superfamily, protocadherins are cadherin-like cell adhesion proteins that contain up to seven extracellular domains and are predominantly expressed in the nervous system. Importantly, the adhesion mechanism of protocadherins is distinct from classic cadherins. Through inactivation or overexpression, several protocadherins have been implicated in a variety of cancers. PCDH7 (protocadherin 7), also known as BHPCDH or BH-Pcdh, is a 1,069 amino acid single-pass I membrane protein that is expressed in the brain and heart. Containing seven cadherin domains, PCDH7 is thought to function in cell-cell recognition and adhesion. PCDH7 exists as three isoforms due to alternative splicing events.

REFERENCES

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4. Zhang, Z. and DuBois, R.N. 2001. Detection of differentially expressed genes in human colon carcinoma cells treated with a selective COX-2 inhibitor. *Oncogene* 20: 4450-4456.
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6. Morishita, H. and Yagi, T. 2007. Protocadherin family: diversity, structure, and function. *Curr. Opin. Cell Biol.* 19: 584-592.
7. Kim, S.Y., et al. 2007. Spatiotemporal expression pattern of non-clustered protocadherin family members in the developing rat brain. *Neuroscience* 147: 996-1021.
8. Singh, A.P., et al. 2008. Genome-wide expression profiling reveals transcriptomic variation and perturbed gene networks in androgen-dependent and androgen-independent prostate cancer cells. *Cancer Lett.* 259: 28-38.
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CHROMOSOMAL LOCATION

Genetic locus: PCDH7 (human) mapping to 4p15.1; Pcdh7 (mouse) mapping to 5 C1.

SOURCE

PCDH7 (2D7) is a mouse monoclonal antibody raised against amino acids 31-124 representing partial length PCDH7 of human origin.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PRODUCT

Each vial contains 100 μ g IgG_{2a} kappa light chain in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

PCDH7 (2D7) is recommended for detection of PCDH7 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

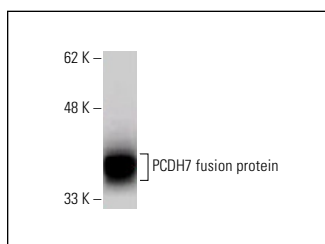
Suitable for use as control antibody for PCDH7 siRNA (h): sc-88977, PCDH7 siRNA (m): sc-106363, PCDH7 shRNA Plasmid (h): sc-88977-SH, PCDH7 shRNA Plasmid (m): sc-106363-SH, PCDH7 shRNA (h) Lentiviral Particles: sc-88977-V and PCDH7 shRNA (m) Lentiviral Particles: sc-106363-V.

Molecular Weight of PCDH7: 130 kDa.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker[™] Molecular Weight Standards: sc-2035, UltraCruz[®] Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



PCDH7 (2D7): sc-517042. Western blot analysis of human recombinant PCDH7 fusion protein.

SELECT PRODUCT CITATIONS

1. Lin, Y.L., et al. 2016. Low expression of protocadherin7 (PCDH7) is a potential prognostic biomarker for primary non-muscle invasive bladder cancer. *Oncotarget* 7: 28384-28392.
2. Thakur, C., et al. 2022. Deletion of mdg enhances H3K36me3 and metastatic potential of the triple negative breast cancer cells. *iScience* 25: 105057.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.